DEPARTMENT OF THE ARMY
HEADQUARTERS, US ARMY MEDICAL COMMAND
2050 WORTH ROAD
FORT SAM HOUSTON, TEXAS 78234-6000

REPLY TO
ATTENTION OF

OTSG/MEDCOM Policy Memo 07-037

MCHO-CL-C

23 AUG 2007

Expires 23 Augudt 2009

MEMORANDUM FOR Commanders, MEDCOM Regional Medical Commands

SUBJECT: Stinging Insect Policy

1. References:

a. AR 40-501, Medical Standards of Fitness, 29 May 2007.

b. Practice Parameter: Stinging Insect Hypersensitivity: A Practice Parameter Update, October 2004 JACI, 114 #4, pg 869-886.
http://www.aaaai.org/professionals/resources/pdf/insect_hypersensitivity_2004.pdf

2. Purpose: To provide administrative guidance and policy to healthcare providers relating to the evaluation, treatment, and assessment of Soldiers, contractors, and civilian personnel with stinging insect allergies.

3. Proponent: The proponent for this policy is the Clinical Services Division, Office of the Assistant Chief of Staff for Health Policy and Services.

4. Facts:

a. Any policy regarding the suitability of an individual with an allergic reaction to stinging insects must consider the following:

(1) Environmental likelihood of a sting.

(2) Statistical risk of having a reaction on a subsequent sting in terms of:

(a) Whether the risk is acceptable for induction and training.

(b) Whether the risk is acceptable for deployment.

(3) Steps that can be taken to ameliorate (reduce) the risk.

b. Stinging insects are divided into two large groups: bees (honeybees, wasps, yellow jackets and hornets) and fire ants. While fire ants have a relatively defined habitat, their range is expanding within the United States and stings have been reported outside their normal habitat range, perhaps due to their inadvertent transportation from endemic areas.

c. Reactions to stinging insects can generally be categorized as follows:

(1) Large Local Reactions. There is a subset of the population who react to stings with large local reactions which are marked by contiguous swelling around the site of the sting. The hallmark is that the reaction is localized and contiguous rather than systemic. The individual has no systemic symptoms that could be associated with anaphylaxis. For individuals with a history of a large local reaction to a stinging insect, the risk of subsequent anaphylaxis in this population is mildly elevated, approximately 5-10%.

(2) Cutaneous-Only Reactions (hives). A more difficult subpopulation to diagnose are the individuals who have hives; a systemic reaction to the sting, that is limited to the skin but have no other signs or symptoms associated with anaphylaxis and require no emergent treatment for their reaction. This subgroup can be divided based upon the age at which the reaction occurred.

(a) If the reaction was before the age of 16, the statistical risk of subsequent anaphylaxis is low, approximately 10%, and the risk of a fatal reaction is quite low. While allergy specialists debate the reactions of this population, they are generally not tested and are not offered venom Immunotherapy (IT). They should be counseled as to their risks, strategies for bee sting avoidance, and offered epinephrine.

(b) If the hive reaction occurred after the age of 16, the risk of subsequent anaphylaxis is higher, approximately 20%, and, generally, allergists consider this risk to be high enough to warrant venom testing (skin testing and/or radioallergosorbent test [RAST]) and subsequent IT if either test is positive.

(3) Systemic Reaction (more than cutaneous only). Individuals who have a systemic reaction to a sting that includes more than just the skin have a 60-70% risk of anaphylaxis to subsequent stings. Venom testing and venom IT is indicated in these individuals, if the testing is positive, as IT can reduce the risk from 60-70% to less than 3%. These individuals can be stratified on the basis of the severity of their reactions because, statistically, reactions to subsequent stings will be approximately of the same severity as the previous ones.

d. The risk of reaction to stinging insects can be stratified, and IT can significantly reduce the risk.

(1) There is no one who is completely without risk of anaphylaxis to stinging insects.

(2) The incidence of allergy to stings in the general population is approximately 1-3% and as many as 50% of bee sting fatalities are in people who had no prior history of reaction to a sting.

(3) There is no utility to general or universal testing to stinging insect venom, as up to 17% of the population have positive skin tests to bee sting venom, but have no allergic reaction when stung.

(4) The risk of a repeat sting to one who has had a previous reaction can be as high as 60-70%. This risk can be reduced to approximately 3% by placing the individual on IT.

(5) Although IT is effective, it does have limitations:

(a) There is a period of build-up where the dose of venom IT delivered is increased from small amounts of very dilute venom to a maintenance dose.

(b) There is a risk of reaction to any shot provided, both during the build-up phase and during the maintenance phase. This reaction can include anaphylaxis, with a remote possibility of death.

(c) The immunization material must remain under controlled refrigerated conditions.

(d) IT must continue for 3-5 years, and in cases of severe reactions, may continue indefinitely. The IT vaccine must remain refrigerated and administered per schedule in a facility with a licensed medical care provider where advanced life support is available.

(e) Protection can wane if IT is discontinued in some individuals, especially if before the initial 3-5 year target is reached.

5. Policy:

a. Individuals with a history of a large local reaction to a stinging insect, and do not have anaphylaxis to stinging insects, are qualified for induction into the Army IAW AR 40-501 (paragraph 30.j., does not apply since it is not considered anaphylaxis), are worldwide deployable, and do not require a profile or allergic red dog tags.

b. Individuals who experienced cutaneous-only reactions (hives) to bee stings prior to the age of 16 are qualified for induction and for worldwide deployment. They do not require profiles or red dog tags.

c. For individuals who experienced cutaneous-only reactions (hives) to bee stings after the age of 16:

(1) Refer to an Allergist for additional evaluation and testing, if not done previously.

(2) Healthcare providers should provided injectable epinephrine, red dog tags, and counsel those individuals with cutaneous-only reactions and negative testing on avoidance measures and risk for future stings ("negative testing" is defined as negative skin test and RAST, or negative skin test twice separated by at least 6 weeks, or RAST alone if skin testing is contraindicated). They do not require a profile and are worldwide deployable. They are not qualified for induction, but a waiver for AR 40-501, chapter 2, section 30.j is recommended for all in this category.

(3) Healthcare providers should offer IT to those individuals with cutaneous-only reactions and positive testing to reduce their risk of future reactions. Healthcare providers should provided injectable epinephrine, red dog tags, and counsel those individuals with cutaneous-only reactions and negative testing on avoidance measures and risk for future stings. They generally do not require a profile if treated with IT. They are worldwide deployable if on IT for at least 3 years or IT available and will be continued during deployment. Otherwise deployment status should be determined on case-by-case basis with input from an allergist. They are not qualified for induction IAW AR-501, paragraph 30.j. However, they may be recommended for waiver on a case-by-case basis by an Allergist, especially if on IT or treated previously with IT.

d. Individuals who experienced a systemic reaction that was more than cutaneous-only:

(1) Refer to an Allergist for additional evaluation and testing, if not done previously.

(2) If subjective symptoms only and no objective signs of anaphylaxis on examination or did not seek medical care and:

(a) Testing is negative: Healthcare providers should provided injectable epinephrine, red dog tags, and counsel those individuals with cutaneous-only reactions and negative testing on avoidance measures and risk for future stings ("negative testing" is defined as negative skin test and RAST, or negative skin test twice separated by at least 6 weeks, or RAST alone if skin testing is contraindicated). They do not

require a profile and are not qualified for induction IAW 40-501, paragraph 30.j. However, a waiver is generally recommended for those in this category. These individuals should be referred to an Allergist for deployment status recommendations when necessary. Those with a history of milder reactions will usually be classified as world-wide deployable, while those experiencing more severe reactions will not.

(b) Testing is positive: Healthcare providers should provide IT, injectable epinephrine, red dog tags, and counsel these individuals on avoidance measures and risk for future stings. They may require a profile and are not qualified for induction AW AR 40-501, paragraph 30.j. However, a waiver may be considered for those on IT or previously treated for at least 3-5 years. These individuals should be referred to an Allergist for deployment status recommendations when necessary. Those who have completed a satisfactory course of IT or will be able to continue IT during deployment will usually be classified as world-wide deployable.

(3) If mild, moderate, or severe anaphylaxis with objective signs (i.e., hypotension, wheezing, stridor, other healthcare worker directly observed physical signs) and:

(a) Testing is negative: Healthcare providers should provide injectable epinephrine, red dog tags, and counsel these individuals on avoidance measures and risk for future stings ("negative testing" is defined as negative skin test and RAST, or negative skin test twice separated by at least 6 weeks, or RAST alone if skin testing is contraindicated). They may require a profile on a case by case basis, and are not qualified for induction IAW 40-501, chapter 2, section 30.j. However, a waiver may be recommended on a case-by-case basis in consultation with an Allergist. These individuals should be referred to an allergist for deployment status recommendations when necessary. Those with a history of milder reactions will usually be classified as world-wide deployable, while those experiencing more severe reactions will not.

(b) Testing is positive: Healthcare providers should offer IT, provide injectable epinephrine and red dog tags, and counsel these individuals on avoidance measures and risk for future stings. They may require a profile and are not qualified for induction IAW AR 40-501. However, a waiver may be considered for those on IT or previously treated for at least 3-5 years. These individuals should be referred to an allergist for deployment status determinations when necessary. Those who have completed a satisfactory course of IT or will be able to continue IT during deployment will usually be classified as worldwide deployable.

e. Additional details regarding Soldiers treated with IT and/or given a medical profile.

(1) IT: Most Soldiers will begin IT with weekly injections for the first few months until reaching a target maintenance dose. Some Soldiers may be offered rush IT

consisting of a modified schedule allowing attainment of the maintenance dose quicker, but at increased risk of reactions to the treatment. All treated Soldiers will then require maintenance injections monthly for approximately the first year, with the interval gradually extended to every 8-12 weeks thereafter. They should be reevaluated every year by an Allergist during IT treatment. While on IT, the Soldier's statistical risk of subsequent sting reaction is approximately the same as an individual who has never had a sting reaction. Soldiers must keep injectable epinephrine on his/her person at all times and wear a red dog tag (or other medical alert notification) indicating the insect allergy. Given the austere environment and conditions of many deployment Theater of operations, IT availability and practicality must be determined for each deployment mission.

(2) Profiles: Soldiers at particularly high risk for life-threatening reactions to stinging insects or IT may be provided temporary or permanent P2 or P3 profiles at the time of evaluation. Applicable codes may include F, X, and U. Profile recommendations are determined on a case-by-case basis, and may include requiring:

(a) Ready access to emergency care that can treat life-threatening respiratory and cardiovascular events.

(b) Carrying epinephrine at all times.

(c) Avoidance of excess exposures to stinging insects and activities which attract stinging insects, such as grounds maintenance, outdoor cooking, and picking up garbage.

(3) These individuals are generally not worldwide deployable and may require assignment limitations. A referral to an allergist is recommended to assist in these determinations.

(4) Individuals who refuse IT when indicated should be referred to an Allergist for additional counseling, and possible referral to a Medical Evaluation Board

6. Enclosed is an Algorithm for Assessing Stinging Insect Allergy.

7. Point of contact is the Allergy-Immunology Consultant to The Surgeon General, Clinical Services Division, at (210) 221-6616.

FOR THE COMMANDER:

Encl

WILLIAM H. THRESHER
Chief of Staff

ALGORITHM FOR ASSESSING STINGING INSECT ALLERGY

For the purpose of this algorithm, "don't know/don't remember" responses should be considered as "Yes" responses

#1 Has the individual ever had an allergic reaction to a sting from a bee, hornet, wasp or fire ant?

YES → #2 Did he/she have only a local reaction? A local reaction is marked by contiguous swelling around the site of the sting and can be Quite impressive, even covering an entire arm Or leg. The hallmark is that the reaction is Localized and continuous rather than systemic (no associated symptoms that could be Associated with anaphylaxis).

NO → #3 Did he/she have a cutaneous-only reaction (hives)? Hives are a systemic reaction to the sting that is limited to the skin with no other signs or symptoms of anaphylaxis present.

NO → #4 Did he/she have a systemic reaction that was more than cutaneous only? Individuals who have a systemic reaction to a sting that includes more than just the skin have a 60-70% risk of anaphylaxis to subsequent stings.

NO → **ASSESSMENT**
- No further evaluation required.
- Qualified for induction.
- No profile required.
- World-wide deployable.
- No MED-Alert Tag required.

YES → 3a. Was he/she under the age of 16 when the cutaneous reaction (hives) occurred?

YES → **ASSESSMENT**
- Qualified for induction.
- No profile required.
- World-wide deployable.
- No MED-Alert Tags required.

NO → Refer to an Allergist for additional evaluation and testing, if not done previously.

YES → Refer to an Allergist for additional evaluation and testing, if not done previously.

ASSESSMENT IF SUBJECTIVE SYMPTOMS ONLY AND NO SIGNS OF ANAPHYLAXIS ON EXAMINATION OR IF PATIENT DID NOT SEEK MEDICAL CARE AND

… TESTING IS NEGATIVE

Negative testing is defined as negative skin test and RAST, or negative skin test twice separated by at least six weeks, or RAST alone if skin testing is contraindicated.

- Should receive injectable epinephrine And MED-Alert Tags.
- Should be counseled on avoidance measures and risk for future stings.
- No profile required.
- Not qualified for induction but a waiver for AR 40-501, Chapter 2, Section 30.j. is recommended.
- Should be referred to an Allergist for deployment status recommendations when necessary.

… TESTING IS POSITIVE

- Should be offered immunotherapy (IT).
- Should receive injectable epinephrine and MED-Alert Tags.
- Should be counseled on avoidance measures and risk for future stings.
- Profile may be required.
- Not qualified for induction IAW AR 40-501, Chapter 2, Section 30.j.; however, a waiver may be considered for those on it or who have been previously treated for at least 3-5 years.
- Should be referred to an Allergist for deployment status recommendations when necessary.

ASSESSMENT IF MILD, MODERATE OR SEVERE ANAPHYLAXIS WITH OBJECTIVE SIGNS (i.e., HYPOTENSION, WHEEZING, STRIDOR, AND/OR OTHER HEALTHCARE WORKER DIRECTLY-OBSERVED PHYSICAL SIGNS AND …

… TESTING IS NEGATIVE

Negative testing is defined as negative skin test and RAST, or negative skin test twice separated by at least six weeks, or RAST alone if skin testing is contraindicated.

- Should receive injectable epinephrine and MED-Alert Tags.
- Should be counseled on avoidance measures and risk for future stings.
- Need for a profile should be determined on a case-by-case basis.
- Not qualified for induction per AR 40-501, Chapter 2, Section 30.j. However, a waiver may be recommended on a case-by-case basis in consultation with an Allergist.
- All should be referred to an Allergist for deployment status recommendations when necessary. Those with history of milder reactions will usually be classified as world-wide deployable while those experiencing more severe reactions will not.

… TESTING IS POSITIVE

- Should be offered immunotherapy (IT).
- Should receive injectable epinephrine and MED-Alert Tags.
- Should be counseled on avoidance measures and risk for future stings.
- Profile may be required.
- Not qualified for induction IAW AR 40-501, Chapter 2, Section 30.j.; however, a waiver may be considered for those on it or who have been previously treated for at least 3-5 years.
- All should be referred to an Allergist for deployment status recommendations when necessary.

May 2007